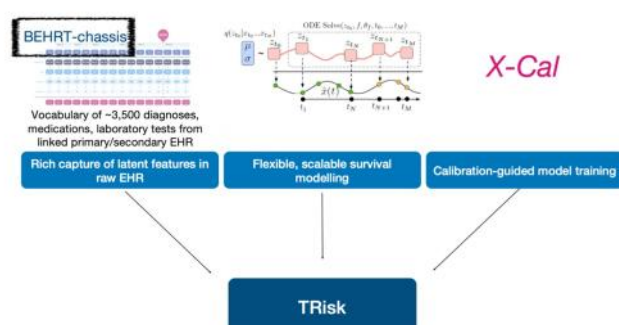


# TRisk is a model for processing and analysing EHR data to provide clinical risk predictions

The Transformer-based Risk assessment survival (TRisk) model is a sophisticated Transformer-based model designed for processing and analysing comprehensive electronic health record (EHR) data for clinical risk prediction. The model's architecture enables it to process temporal medical data from multiple healthcare modalities, be it primary care, secondary care (e.g., hospital events), or any other linked dataset (e.g., socioeconomic data). The model has been validated to predict several outcomes in various cohort profiles across both UK and USA EHR datasets.

**Applications:** Risk prediction, Electronic Health Records, Multimodal data processing



| Features                                                                                                                                             | Benefits                                                                                                 |
|------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|
| TRisk operates on minimally processed data                                                                                                           | No need for complex data pre-processing or missing value imputation                                      |
| TRisk treats patient medical histories as variable-length sequences, with each health event mapped to the patient's age and service encounter timing | This temporal mapping provides crucial context for understanding disease progression and health patterns |

| Features                                                                                                                                                                         | Benefits                                                                                                                                                                                                                                    |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Trisk processes data from longitudinal streams of information including diagnoses, medications, laboratory test types and procedure codes – all mapped to universal vocabularies | This is a versatile model in terms of both the universally mapped data that it can accept (e.g., ICD-10 codes for diagnoses) and the clinical predictions it can provide – enabling application in various settings and different countries |

---

## Available for

- Co-development
- Consulting
- Licensing

---

To find out more, contact [enquiries@innovation.ox.ac.uk](mailto:enquiries@innovation.ox.ac.uk) and quote the project number.

The above information is provided 'as is' without conditions or warranties. Oxford University Innovation makes no representation and gives no warranty that it is the owner of the intellectual property rights in the technology described. © Oxford University Innovation Ltd 2026, Buxton Court, 3 West Way, Oxford, OX2 0JB.